

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)
)
Fixed and Mobile Services in the Mobile Satellite)
Service Bands at 1525–1559 MHz and 1626.5–) ET Docket No. 10-142
2660.5 MHz, 1610–1626.5 MHz and 2483.5–)
2500 MHz, and 2000–2020 and 2180–2200 MHz)
)

To: The Commission

EIBASS Petition for Reconsideration

Engineers for the Integrity of Broadcast Auxiliary Services Spectrum (EIBASS) hereby respectfully submits its Petition for Reconsideration of the April 6, 2011, ET Docket 10-142 Report and Order (R&O). That R&O has not yet been published in the Federal Register; therefore, this Petition for Reconsideration is timely filed.¹

I. The R&O Completed Ignored or Overlooked the EIBASS Comments Regarding Grandfathered TV BAS Channel A10 Operations at 2,483.5–2,500 MHz

1. EIBASS is filing a Petition for Reconsideration because the R&O either ignored or overlooked the EIBASS comments regarding grandfathered Broadcast Auxiliary Services (BAS) operations on TV BAS Channel A10 at 2,483.5–2,500 MHz.
2. Although there are only approximately one hundred of these grandfathered TV BAS Channel A10 licenses, about 90% are used for electronic news gathering (ENG) TV Pickup stations. Further, a single TV Pickup license authorizes an unlimited number of mobile transmitters. TV Pickup station transmitters used for ENG are of necessity mobile and typically have substantial operational areas that often employ multiple ENG receive-only (ENG-RO) sites. Broadcasters and TV Broadcast Network Entities holding TV BAS licenses with rights to grandfathered A10 operation carefully protect those licenses to ensure that they are not allowed to inadvertently expire and thus lose their grandfather rights.²

¹ Further, the R&O did not become available in the Electronic Comment Filing System (ECFS) until May 24, 2011 (not May 20, as incorrectly indicated in the ECFS; May 20 was the posting date of the Erratum to the R&O, which had mistakenly been posted twice, with no posting of the R&O until May 24).

² Electronic news gathering (ENG), aside from its obvious value of providing real-time event coverage for broadcast news operations, also can become a vital resource to the emergency management community.

EIBASS Petition for Reconsideration: ET Docket 10-142, MSS Flexibility

3. Why is this so important to BAS licensees? The simple and undisputed answer that has repeatedly been given to the Commission by the Society of Broadcast Engineers, Inc. (SBE) since 1982, and now EIBASS, is that there are more ENG users than available channels in many markets.³ Grandfathered operations on A10 are extensively used by BAS licensees as an "overflow" TV BAS channel when covering entertainment and sporting events, especially in Category I ENG markets.⁴

4. The substantial and vital grandfathered core business need and use of TV BAS Channel A10 was most recently pointed out in the December 1, 2009, EIBASS *ex parte* comments to IB Docket 02-364/ET Docket 00-258/WT Docket 03-66. The existence of TV BAS Channel A10 was also in the October 13, 2009, EIBASS initial comments and the October 23, 2009, EIBASS reply comments to the WT Docket 03-66 *Fifth Memorandum, Opinion and Order (MO&O) and Third FNPRM*. The existence of the TV BAS Channel A10 was additionally identified in the March 30, 2004, SBE *Reply to Opposition of Petition for Reconsideration* of the February 10, 2003, IB Docket 01-185 *Report and Order (R&O)*, and in the April 4, 2003, SBE *Petition for Reconsideration of the ET Docket 01-185 R&O*.

Such real time coverage is often relied on at incident command posts and emergency operations centers (EOC) to supplement reports from sworn emergency responders. It is the rare EOC that does not have one or more TV sets tuned to local stations during major emergencies.

³ SBE first documented the problem of insufficient BAS spectrum to the Commission in its comments to General Docket 82-334 (Policy for Certain Bands Between 0.947 and 40 GHz). Subsequent SBE filings on this same issue were made in ET Docket 94-32 (Return of Below-5 GHz Federal Spectrum to the Private Sector, which attempted to obtain 25 MHz of replacement TV BAS spectrum at 4,660-4,685 MHz); ET Docket 90-314 (Personal Communications Services); ET Docket 92-9 (Redevelopment of Spectrum to Encourage Innovative Use of New Telecommunications Technologies); and Interdepartmental Radio Allocation Committee (IRAC) Docket 30063 to codify the long standing informal sharing of 2 GHz TV BAS frequencies by the National Aeronautics and Space Administration (NASA).

⁴ At paragraph 19 of the July 6, 2000, ET Docket 95-18 *Second R&O and Second MO&O*, the Commission adopted verbatim the description submitted by the SBE for the classes of ENG markets. Those classifications are as follows:

Category I. "Los Angeles" or "LA." Extremely heavy use, mostly split channel. There is lots of itinerant use and channel borrowing and sharing; even so, seven channels aren't enough.

Category II. "Metro." Spectrum is heavily used, especially during the news hours. There is some split channel use, not a lot, and some itinerant use. There is regular channel borrowing and sharing.

Category III. "Light." There is some electronic news gathering ("ENG"), some fixed link, maybe even some channels mostly vacant most of the time. Typically, a small-market, low-competition situation.

Category IV. "Rural." ENG is unheard of, the use is for fixed, long-haul relays to small-market TV stations, to TV translator stations, and to cable television headends. In some areas not all channels are even used.

EIBASS Petition for Reconsideration: ET Docket 10-142, MSS Flexibility

4. Thus, EIBASS was disappointed to see that the Commission had apparently overlooked grandfathered operations on TV BAS Channel A10 when the ET Docket 10-142 Notice of Proposed Rulemaking (NPRM) was issued, with no mention of the obligation of Mobile Satellite Services (MSS) Ancillary Terrestrial Component (ATC) licensees to protect those co-primary and earlier-in-time operations. That is, at page 2, footnote 7 of the NPRM, such TV BAS operations are not even mentioned when describing the current users of 2,483.5–2,500 MHz.

5. Thus, EIBASS filed its timely comments, to ensure that the R&O would acknowledge the existence of these grandfathered stations. But after going to the effort of filing those timely comments, EIBASS was profoundly disappointed to see a R&O issued with no mention whatsoever of grandfathered TV BAS Channel A10 operations. This was, EIBASS believes, a violation of the Commission's obligations under the Administrative Procedures Act, a violation of Section 1.415(a) of the Commission's own rules governing rulemaking proceedings, not to mention being inconsistent with fundamental fairness.

II. Case of Actual Harmful Interference Has Now Surfaced

6. Since filing its Docket 10-142 comments, EIBASS has now learned of an actual case of harmful interference by MSS ATC operations to grandfathered TV BAS Channel A10 operations. In December of 2010, two Chicago-area TV stations, WBBM-TV, D12 (V02), Chicago, IL, and WGN-TV, D19 (V09), also Chicago, began seeing an always-on interfering signal present at their ENG-RO sites at the Sears Tower and at the Hancock Center, both in downtown Chicago. WBBM-TV is the CBS affiliate for Chicago, and WGN-TV is the C-W affiliate. WBBM-TV holds TV Pickup Station KB55028, and WGN-TV holds TV Pickup Station license KQ8499, both with grandfather rights to TV BAS Channel A10.

7. The attached Figure 1 shows a spectrograph of the interfering signal. The source of the interference was eventually tracked to Open Range Communications Inc. (Open Range), operating pursuant to an International Bureau (IB) Special Temporary Authority (STA), File Number SAT-STA-20110106-0003, granted January 20, 2011.

8. The attached Figure 2 shows the locations of the KB55028 and KQ8499 operational areas, and the location of the Open Range base station at St. John, IN, that turned out to be the source of the interference; it is clear that this MSS ATC station is well inside the operational areas of these TV Pickup stations, yet EIBASS has discovered that Open Range had not conducted proper frequency coordination by first contacting WBBM-TV, WGN-TV, or the Chicago-area Above-1 GHz Broadcast Auxiliary Services (BAS) frequency coordinator, Mr.

EIBASS Petition for Reconsideration: ET Docket 10-142, MSS Flexibility

Craig Strom of Station WLS-TV, D07 (V07), which is the ABC affiliate for Chicago.⁵ Because of this failure to coordinate, WBBM-TV and WGN-TV suffered interference to their ENG operations for far longer than necessary, while the source of the interfering signal was tracked down. The process that led to the identification of Open Range included the assistance of the Chicago office of the Commission's Enforcement Bureau (Case Number EB-11-CG-0015).

9. Both SBE and EIBASS have been repeatedly assured in IB and OET rulemakings concluding that grandfathered TV BAS operations on Channel A10 would not receive interference from co-channel S-Band MSS ATC operations through "frequency coordination." It has never been explained by either IB or OET how frequency coordination could somehow allow non-interfering operation between a mobile service such as ENG and a cellular architecture of multiple base stations, in the same area and at the same time. Indeed, it was this mutually exclusive use of spectrum that justified relocating 2 GHz ENG operations from 1,990–2,110 MHz, to 2,025–2,110 MHz, so as to free-up 35 MHz of former TV BAS spectrum for MSS use. When MSS entities faltered, that spectrum was not utilized. Ten MHz was then re-re-allocated to third-generation wireless services (in two 5-MHz wide bands, at 1,995–2,000 MHz and 2,020–2,025 MHz), and an additional 5 MHz, at 1,990–1,995 MHz, was re-re-allocated to Sprint Nextel, as compensation for the de-interleaving of the 850 MHz Specialized Mobile Radio (SMR) band.

10. EIBASS understands that Open Range has now either modified its base station antennas, reduced power, or possibly both, so as to reduce the level of interference to the WBBM-TV and WGN-TV ENG operations to an acceptable level. What is not acceptable, in EIBASS' view, is the total failure of Open Range to do prior frequency coordination with these stations, or the amount of time it took Open Range to take corrective action once the interference had been tracked down. For the record, the STA included the following condition:

Open Range shall not cause harmful interference to, and shall not claim protection from, any other lawfully operating station. In the event harmful interference results from operation pursuant to this authorization, Open Range shall cease operations immediately upon notification of such interference, and shall immediately inform the Federal Communications Commission, in writing, of the incident.

The STA also included a requirement to submit regular reports to IB, as follows:

Open Range shall submit a monthly filing to the Chiefs of the International Bureau, the Wireless Telecommunications Bureau, and

⁵ The SBE web site lists the locations and contact information for volunteer BAS frequency coordinators throughout the U.S.; see http://www.sbe.org/sections/freq_local.php.

EIBASS Petition for Reconsideration: ET Docket 10-142, MSS Flexibility

the Office of Engineering and Technology, that provides a status report on its obtaining access to alternative spectrum and its plans for transition customers to the use of this alternative spectrum. Each month report shall be submitted on the first business day of the month, beginning of October 1, 2010.

When EIBASS asked Open Range for copies of the monthly reports for January, February and March, 2011, Open Range refused, as documented in the attached Figure 3. EIBASS therefore hopes that the Commission will check those reports to see if Open Range reported the interference it had been causing to ENG operations in Chicago.

11. Thus, EIBASS asks that an Order on Reconsideration be issued, one that acknowledges the existence of indefinitely-grandfathered, co-primary, and earlier-in-time TV BAS Channel A10 operations that newcomer 2,487.5–2,495 MHz S-Band⁶ MSS ATC licenses are obligated to protect. And, hopefully, such an Order will also address the Chicago interference caused by Open Range.

12. Such documentation is all the more important because of the upcoming World Radiocommunication Conference 2012 (WRC-12). ITU Administrative Circular CA/106, dated April 6, 2011, indicates at its Annex 1, Resolution 1291, Item 1.18, that WRC-12 will be considering

extending the existing primary and secondary radiodetermination-satellite service (space-to-Earth) allocations in the band 2 483.5–2 500 MHz in order to make a global primary allocation, and to determine the necessary regulatory provision based upon the results of ITU-R studies, in accordance with Resolution 613 (WRC-07).

13. Because this EIBASS Petition for Reconsideration documents that MSS ATC interference to TV BAS operations has now been shown to be more than just a theoretical interference threat (but a painfully obvious one, in EIBASS' view), the issue of how the United States deals with 2,483.5–2,500 MHz is important.

⁶ S-Band MSS ATC interference should not be confused with L-Band MSS ATC interference to Global Positioning System (GPS) signals, where high-power terrestrial MSS ATC stations at 1,626.5–1,645.5 MHz and 1,646.5–1,660.5 MHz pose a brute force overload (BFO) interference threat to 1,575.42 MHz GPS signals. The Commission has created a GPS Overload/Desensitization Working Group (GPSO/DWG) to investigate the matter, with a final report due on June 15, 2011; see the January 26, 2011, *Order and Authorization* to satellite license S2358, FCC File Number SAT-MOD-20101118-00239 (the *LightSquared Order*). Thus, MSS ATC operations are now managing to cause actual interference at 2.5 GHz, and potential interference at 1.6 GHz; quite a spectrum management feat.

III. Re-farming the 2.5 GHz TV BAS Would Solve the A10 vs MSS ATC Conflict

14. Until the Commission re-farms the 2.5 GHz TV BAS band, as suggested by SBE in its July 11, 2005, *Response to Reply of Globalstar to the Informal Objection of the Society of Broadcast Engineers, Inc.*, and as summarized in the attached Figure 4, EIBASS will keep reminding the Commission of this indefinitely grandfathered, co-primary use of 2,483.5–2,500 MHz.

IV. Summary

15. The ET Docket 10-142 R&O completely failed to acknowledge any of the points raised by EIBASS about grandfathered TV BAS operations at 2,483.5–2,500 MHz, or even the existence of grandfathered A10 operations. Since the September 2010 EIBASS filing, a case of interference to grandfathered A10 operations by MSS ATC has surfaced. An Order on Reconsideration needs to be issued, acknowledging the existence of grandfathered TV BAS Channel A10 stations, and acknowledging the obligation of MSS ATC entities to protect such grandfathered operations. Finally, the Commission should adopt the band re-farming proposed by SBE in 2005, to solve this frequency conflict once and for all.

EIBASS Petition for Reconsideration: ET Docket 10-142, MSS Flexibility

List of Figures

16. The following figures or exhibits have been prepared as a part of these ET Docket 10-142 Petition for Reconsideration:

1. Spectrograph of interfering MSS ATC signal at the Sears Tower ENG-RO site.
2. Map showing the KB55028 and KQ8499 ENG-RO sites and operational areas, versus the Open Range St. John base station.
3. E-mail from Open Range, declining to provide copies of its required monthly reports.
4. Figure showing the 2005 SBE-proposed re-farming of the 2.5 GHz TV BAS band.

Respectfully submitted,

/s/ Dane E. Ericksen, P.E., CSRTE, 8-VSB, CBNT
EIBASS Co-Chair
Hammett & Edison, Inc., Consulting Engineers
San Francisco, CA

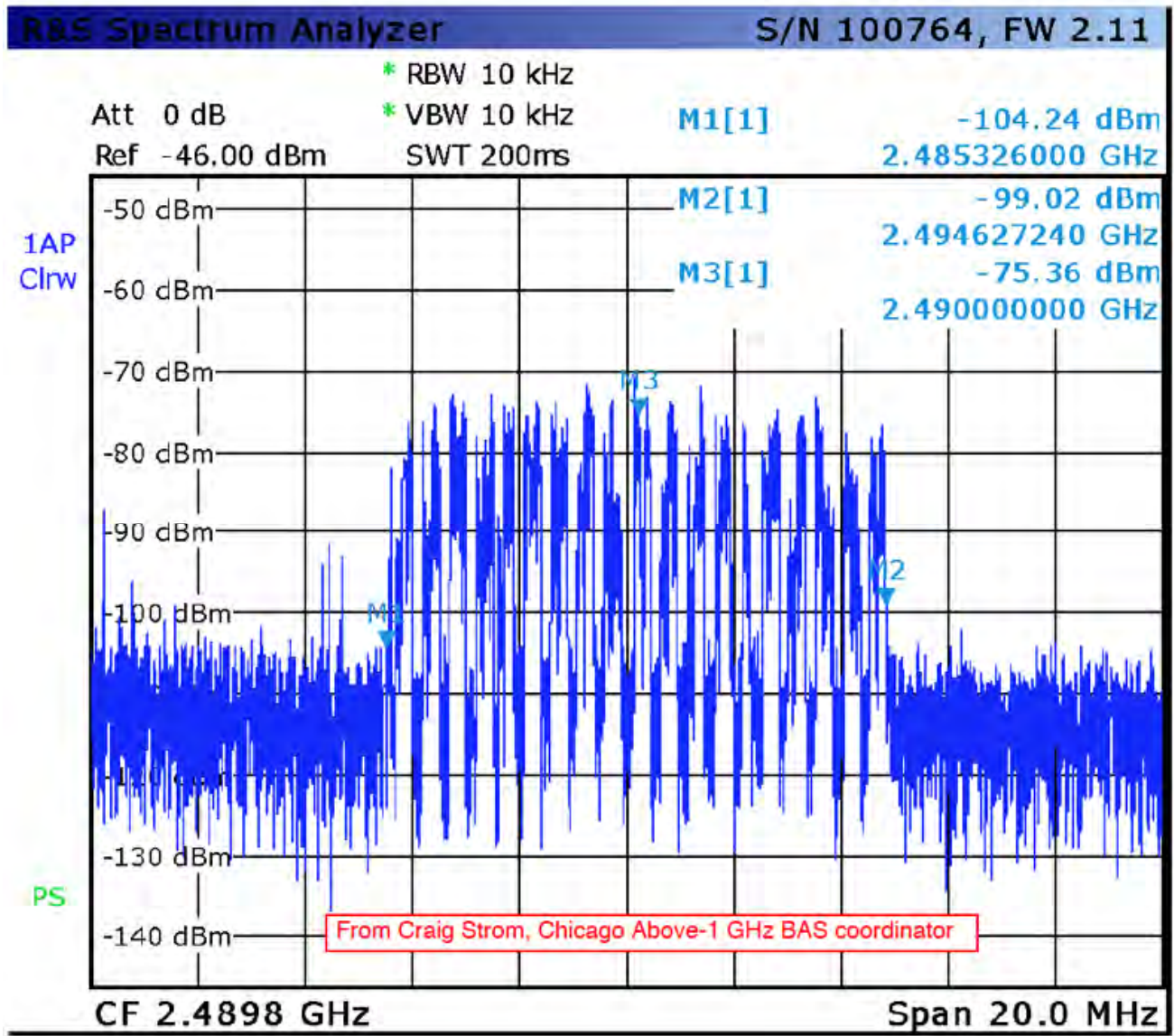
/s/ Richard A. Rudman, CPBE
EIBASS Co-Chair
Remote Possibilities
Santa Paula, CA

May 27, 2011

EIBASS
18755 Park Tree Lane
Sonoma, CA 94128
707/996-5200
dericksen@h-e.com

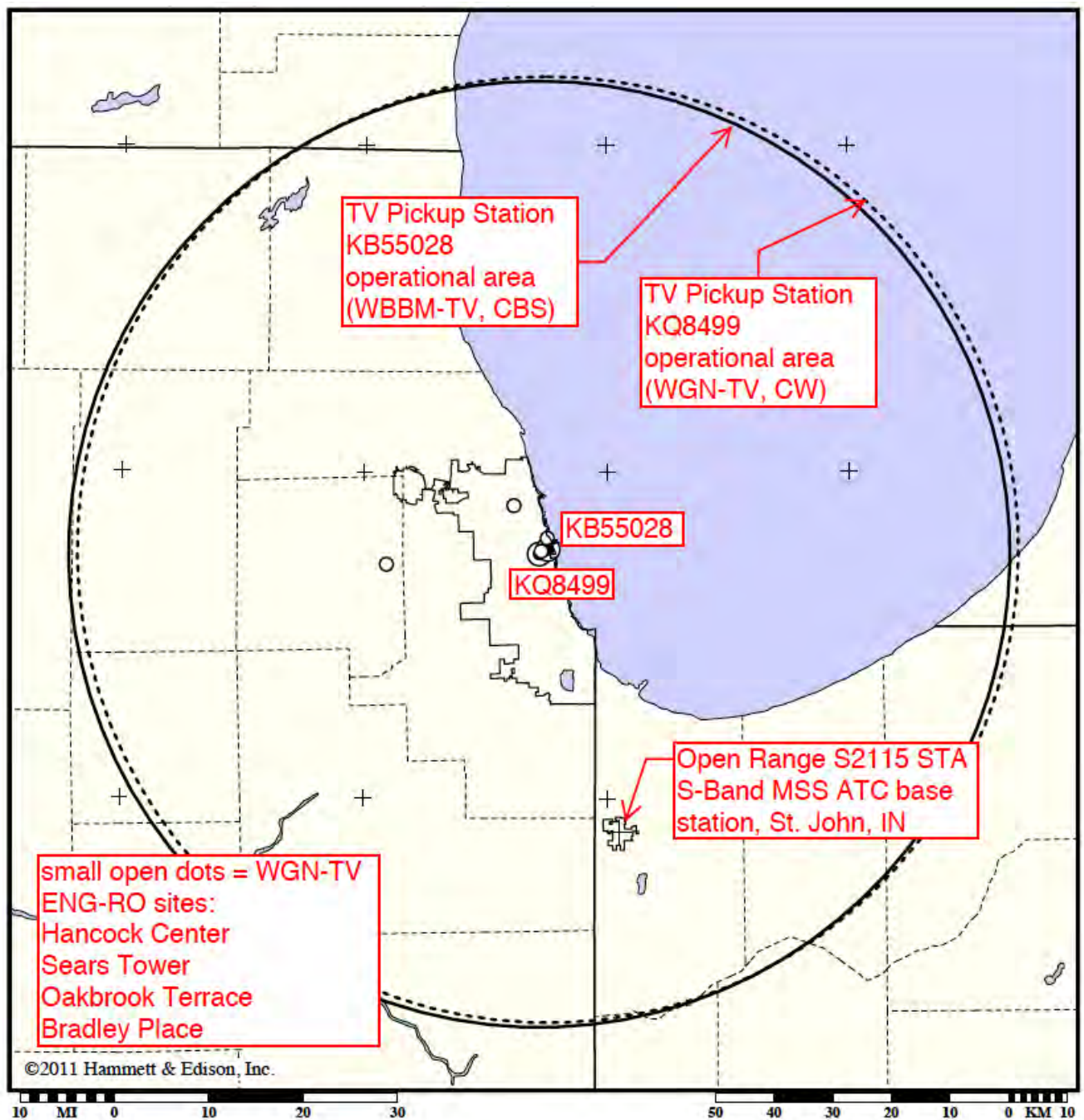
EIBASS Petition for Reconsideration: ET Docket 10-142, MSS Flexibility

MSS ATC Interfering Signal at Sears Tower ENG-RO Site



EIBASS Petition for Reconsideration: ET Docket 10-142, MSS Flexibility

TV Pickup Stations KB55028 and KQ8499 vs. Open Range



EIBASS Petition for Reconsideration: ET Docket 10-142, MSS Flexibility

Open Range Refusal To Provide Reports

From: Dan Vortherms <dan@openrange.us>
Subject: **RE: Copy of S2115 monthly reports?**
Date: March 21, 2011 7:51:43 PM PDT
To: Dane Ericksen <dericksen@h-e.com>
Cc: Joe Snelson <joe.snelson@meredith.com>, Craig Strom <craig.strom@abc.com>, Richard Rudman <rar01@mac.com>, Howard Fine <howard@pactv.com>, McFadden, Patrick R. <Patrick.McFadden@dbr.com>

Sorry, I've been on vacation and travel, then back on vacation again.

The monthly FCC filings in regard to the STA are for us to advise the FCC on the status of our work in getting new spectrum. In that regard, these filings are submitted to the FCC pursuant to a request for confidential treatment as allowed under FCC rules. The filings are not publicly available. With regard to the search for new spectrum, I cannot add anything beyond that which is in our recent press release on spectrum that will allow us to move to the L-band.

Dan

-----Original Message-----

From: Dane Ericksen [mailto:dericksen@h-e.com]
Sent: Monday, March 21, 2011 1:47 PM
To: Vortherms, Dan
Cc: Joe Snelson; Craig Strom; Richard Rudman; Howard Fine
Subject: Fwd: Copy of S2115 monthly reports?

March 21, 2011

Mr. Vortherms:

Could you please let me know whether you received this e-mail?

Thanks,

Dane E. Ericksen

cc1: Craig Strom
cc2: Joe Snelson
cc3: Richard Rudman, Howard Fine

From: Dane Ericksen <dericksen@h-e.com>
Date: March 18, 2011 10:44:13 AM PDT
To: Dan Vortherms <dan@openrange.us>
Cc: Craig Strom <craig.strom@abc.com>, Richard Rudman <rar01@mac.com>, Joe Snelson <joe.snelson@meredith.com>, Howard Fine <howard@pactv.com>
Subject: Copy of S2115 monthly reports?

EIBASS Petition for Reconsideration: ET Docket 10-142, MSS Flexibility

Open Range Refusal To Provide Reports

March 17, 2011

Mr. Vortherms:

I see that today the Internal Bureau renewed the Open Range S2115 STA for 2,483.5-2,495 MHz. As you know, MSS ATC is co-channel with grandfathered and co-primary TV BAS Channel A10 at 2,483.5-2,500 MHz. The S2115 STA requires monthly reports to the FCC, but I am not finding copies of those reports in the International Bureau Filing System (IBFS). Would it be possible to receive PDF copies of the last three reports?

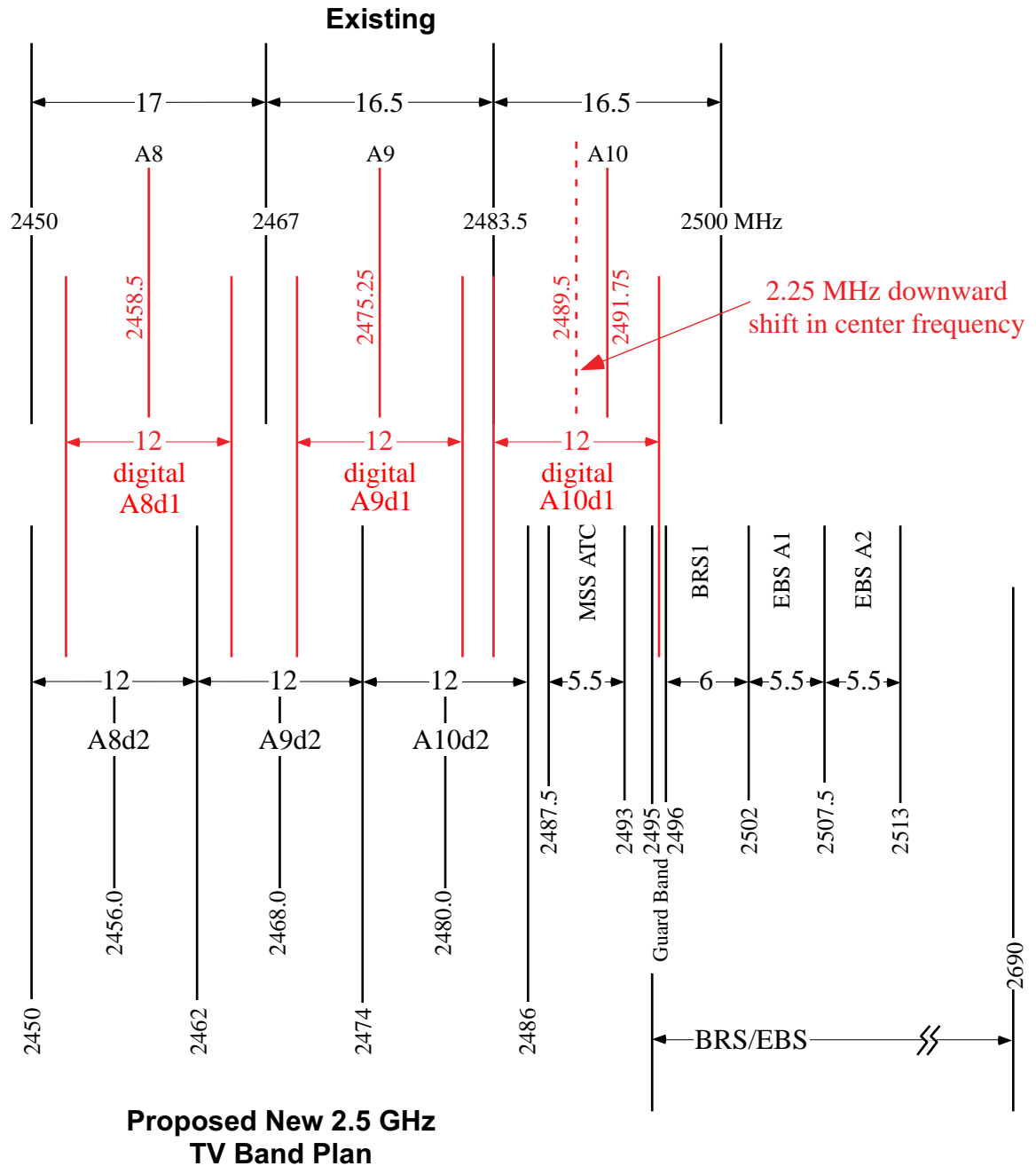
Thanks,

Dane E. Ericksen, P.E., CSRTE, 8-VSB, CBNT
Co-Chair, Engineers for the Integrity of Broadcast Auxiliary Services Spectrum (EIBASS)
SBE Certification Committee (1987-present)
Secretary, SBE Chapter 40, San Francisco (2000-present)
c/o Hammett & Edison, Inc.
Consulting Engineers
San Francisco
dericksen@h-e.com
707/996-5200 voice
707/996-5280 fax

cc1: Craig Strom, Chicago Above-1 GHz TV BAS frequency coordinator
cc2: Joe Snelson, Chairman, SBE Frequency Coordination Committee
cc3: Richard Rudman, Howard Fine

EIBASS Petition for Reconsideration: ET Docket 10-142, MSS Flexibility

Existing vs SBE-Proposed New 2.5 GHz TV BAS Band Plan



All frequencies and bandwidths are in MHz.